



State Police Analytical Research Tool-Networked

## **SPART-N: The Future of Criminal Intelligence Analysis**

*Texas Government Data Forum*

June 21, 2018

Texas Department of Public Safety | **Amy Hauck**  
Deloitte | **Savita Raghunathan**

# Agenda

- ✓ TX DPS Mission, Key Functions & Structure
- ✓ TX DPS Vision, Problem Statement & Solution
- ✓ SPART-N Empowers Discovery & Decision
- ✓ Advancements in Data Technologies
- ✓ Solution Scope & Timeline
- ✓ Solution Design
- ✓ TX DPS Inputs & SPART-N Outputs
- ✓ ICT Analysts' Initial Impressions
- ✓ SPART-N Demo
- ✓ Questions & Answers

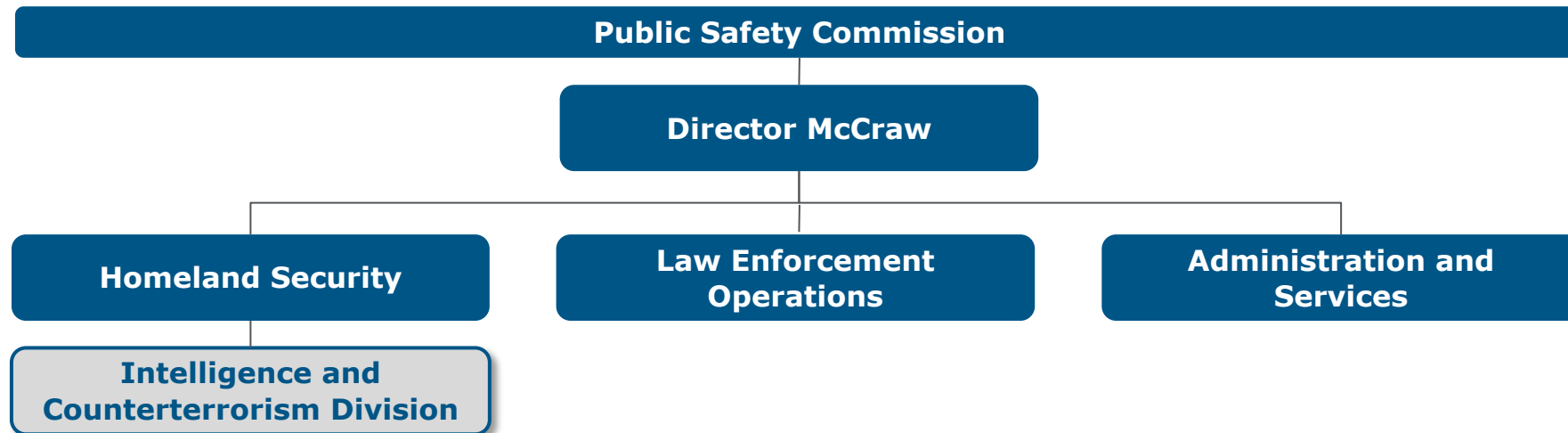
# TX DPS Mission, Key Functions & Structure

**TX DPS Mission:** Protect and serve Texas

**Key Functions:**

- ✓ Combat crime and terrorism
- ✓ Enhance highway and public safety
- ✓ Enhance statewide emergency management
- ✓ Enhance public safety licensing and regulatory services

## Structure:



# TX DPS Vision, Problem Statement & Solution

## TX DPS Vision:

Empower Intelligence and Counterterrorism (ICT) Analysts to perform valuable sophisticated network analysis within a single workspace.

## Problem Statement:

ICT Analysts spend a significant amount of time on manual processes to aggregate and resolve disparate and complex data sets. Analysts can dedicate more time to focus on their mission via sophisticated network analysis.

## Solution:

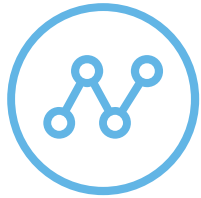
SPART-N will provide ICT Analysts a modern data platform with sophisticated data visualization capabilities that will enable them to obtain results from a number of large data sets in a user-friendly, proficient, accurate, and expedient manner on a continuous (24 hour/7day a week) basis.

# SPART-N Empowers Discovery & Decision

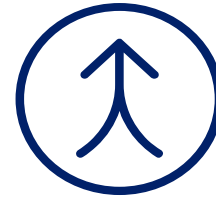
We have enabled ICT Analysts to **detect and deter threats** that may have otherwise gone unnoticed by creating a **self-service platform that resolves and persists relationships** across data. SPART-N utilizes advancements in data technologies to **exploit networks of bad actors** with six key capabilities:

- ✓ Explore and Analyze
- ✓ Visualize Sophisticated Networks
- ✓ Enrich Analysis with Public Data
- ✓ Link Unstructured Relationships
- ✓ Exploit Machine Learning
- ✓ Proactively Manage Risk as a Network

# Advancements in Data Technologies



Scale to billions of records through **cloud & distributive storage capabilities**



Enhance your existing data with **structured & unstructured open source data**



Gather new insights using **advanced analytics & machine learning**



Tailor solution-user interfaces to your specific workflow using **user-centric design**



Use **agile processes** to get to MVP and in your analysts' hands faster

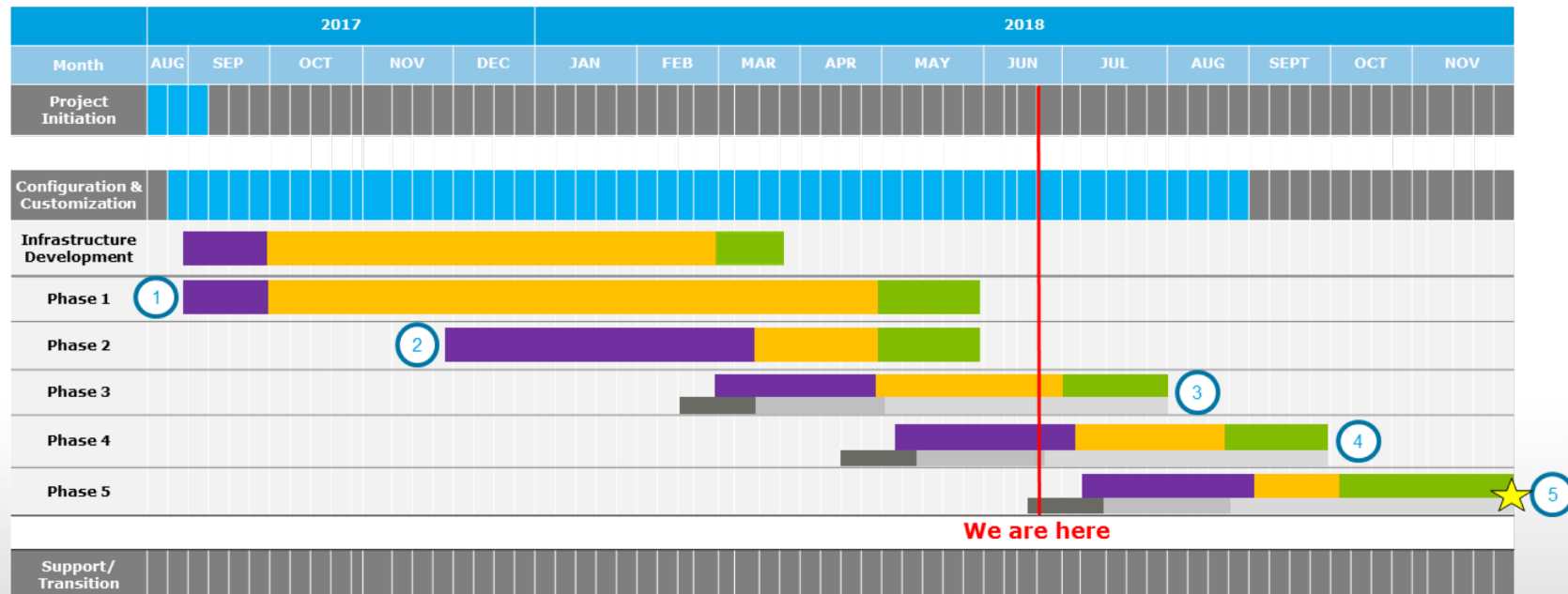


Reduce overall costs by incorporating **open source technologies** in solution architecture

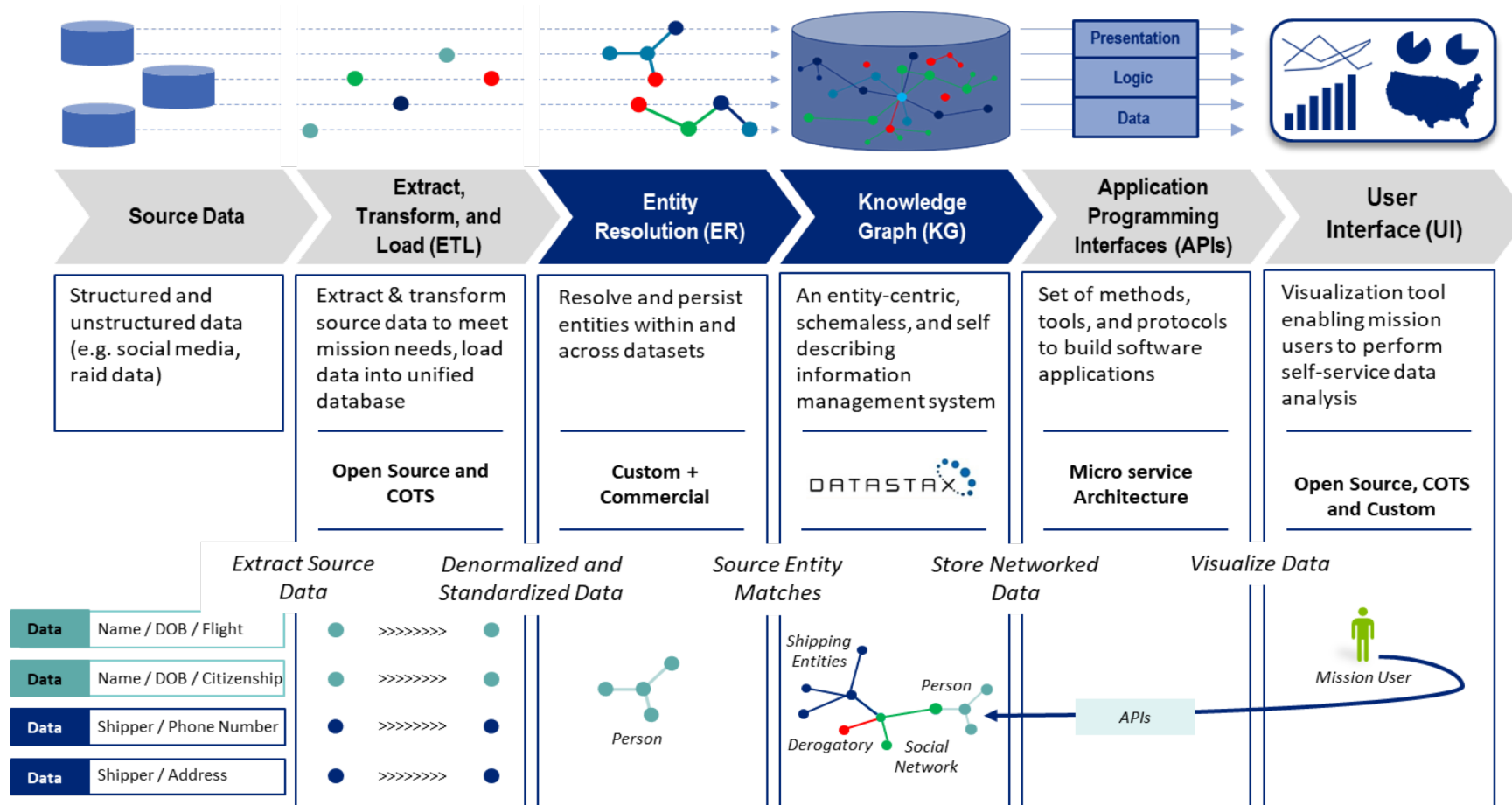
# Solution Scope & Timeline

TX DPS's ICT Division engaged Deloitte to create SPART-N, an Analytical Data Mart (ADM) Solution that will:

- ✓ Federate over **12 terabytes of data** organized in 11 internal and external databases **across five phases**
- ✓ Be hosted in the **Amazon Web Services GovCloud** in compliance with the FBI Criminal Justice Information Services security policy
- ✓ Consolidate and **resolve entities** stored across these 11 disparate data sources in real time
- ✓ Construct entity **graph relationships** from resolved data sets and grow the network as new data sources are added



# Solution Design

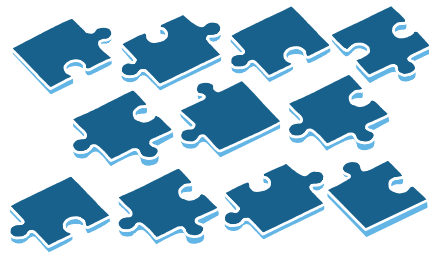


All vendors are able to be deployed on-prem or in the cloud, and are scalable.



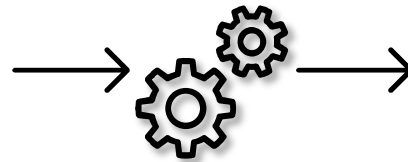
# TX DPS Inputs & SPART-N Outputs

## TX DPS Inputs:

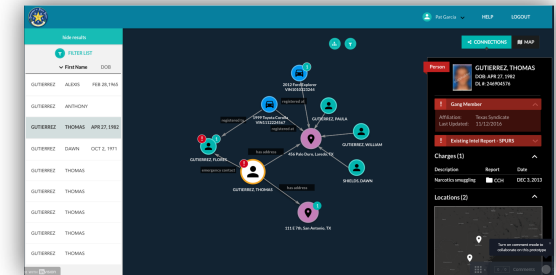


11 Databases

*Extract, Transform  
and Load Data*



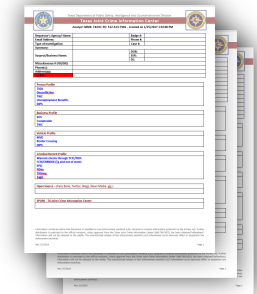
## SPART-N Outputs:



Search Results via UI



Graph Visualization



ICT Work-up Template

Deloitte.

**SPART-N**  
State Police Analytical Research Tool-Networked

The Future of Criminal Intelligence Analysis



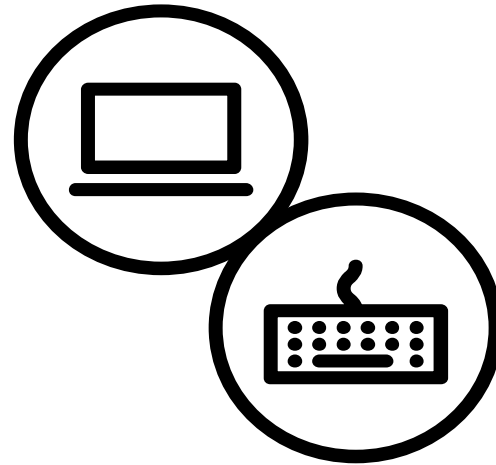
# ICT Analysts' Initial Impressions of SPART-N

*"Wow! When can we start using this?"*

*"I was able to find the subject more quickly in SPART-N than in DLS (with a misspelled, hyphenated name, and age as the only provided identifiers)."*

*"Very detailed link chart looked easy to read and navigate."*

# SPART-N Demo



# Questions & Answers



# Thank You!

Texas Department of Public Safety | Amy Hauck

*Deputy Administrator, Director's Staff*

*Intelligence and Counterterrorism (ICT) Division*

*Amy.Hauck@dps.texas.gov*

Deloitte | Savita Raghunathan

*Deloitte Principal, Systems Integration*

*sraghunathan@deloitte.com*

**Deloitte.**

**SPARTAN**  
State Police Analytical Research Tool-Networked

**The Future of Criminal Intelligence Analysis**

